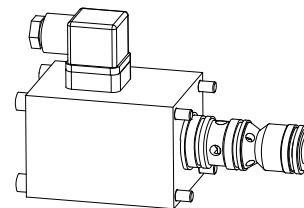


## Solenoid poppet valve cartridge

- normally open
- $Q_{max} = 80 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

**NG10**


### DESCRIPTION

This 2/2-way poppet valve in slip-in cartridge design is mainly used in blocs for hydraulic integrated circuits. Poppet cartridge and spring will be supplied as separate items, if ordered, together with solenoid (VDE standard 0580) and fastening screws.

**Important:** at the time the valve is taken into service, the valve must be vented under pressure (max. 2 revolutions of screw E).

### FUNCTION

If energised, the pressure proof solenoid presses the poppet onto the seat, acting against a spring. In deenergised state the poppet is lifted off its seat by the spring. One to the pressure balanced design of the poppet-spool no undesired opening as closing forces arise. As a result, oil can flow in both directions through the seating valve. The seat/piston guide is sealed with an O-ring. The seat with a metallic seal closes off the valve so that there is no leakage oil.

### APPLICATION

Wandfluh poppet valves can be used anywhere absolutely leak tight closing functions are important. Completely sealed loading, gripping and clamping operations are all important functions which Wandfluh poppet valves can perform. Cartridge type poppet valves can be neatly accommodated in valve blocks. Cavity tools are available for hire or sale for machining aluminium or steel. See data sheet register no. 2.13.

### CONTENT

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### TYPE CODE

Poppet valve cartridge	2	2	10	0-S1265	#	<input type="checkbox"/>
Poppet valve cartridge with solenoid	<input type="checkbox"/>	2	2	10	0-S1265 -	# <input type="checkbox"/>
Medium-solenoid <input type="checkbox"/> M						
Super-solenoid <input type="checkbox"/> S						
2-way (Connections)						
2 Position						
Nominal size 10						
Normally open						
Standard-nominal voltage $U_N$ :	12 VDC	<input type="checkbox"/> G12	110 VAC	<input type="checkbox"/> R110		
	24 VDC	<input type="checkbox"/> G24	115 VAC	<input type="checkbox"/> R115		
			230 VAC	<input type="checkbox"/> R230		

Design-Index (Subject to change)

### GENERAL SPECIFICATIONS

Description	2/2-way poppet valve
Nominal size	NG10
Construction	Direct operated poppet valve
Operations	Solenoid
Mounting	cartridge form
	4 solenoid fixing screws M6
Ambient temperature	-20...+50 °C
Mounting position	any
Fastening torque	$M_D = 8,9 \text{ Nm}$ (quality 8.8)
Weight: 22100-S1265	$m = 0,21 \text{ kg}$
22100-S1265-..	$m = 2,07 \text{ kg}$
Volume flow direction	any (see characteristics)

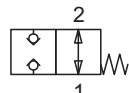
### HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10} \dots 16 \geq 75$ ) refer to data sheet 1.0-50/2
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Fluid temperature	-20...+70 °C
Working pressure	Medium: $p_{max} = 160 \text{ bar}$ Super: $p_{max} = 350 \text{ bar}$
Max. volume flow	$Q_{max} = 80 \text{ l/min}$ , see characteristics

### ELECTRICAL CONTROL

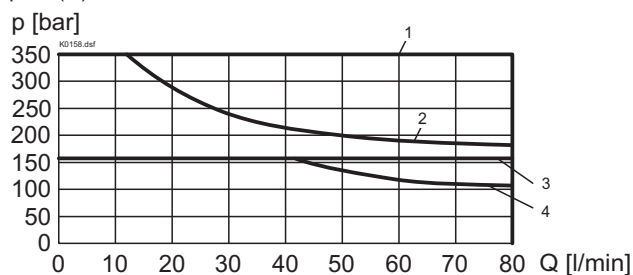
Construction	Solenoid, wet pin push type, pressure tight
Standard-nominal flow	$U_N = 12 \text{ VDC}, 24 \text{ VDC}$ $U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$ $AC = 50 \text{ to } 60 \text{ Hz}$ * Rectifier integrated in the plug Other nominal voltages and nominal performances on request
Voltage tolerance	$\pm 10\%$ of nominal voltage
Protection class	IP 65 to EN 60529
Relative duty factor	100% DF (see data sheet 1.1-430)
Switching cycles	15 000/h
Operating life	$10^7$ (number of switching cycles, theoretically)
Connections/Power supply	Over device plug connection to ISO 4400/DIN 43650, (2P+E), other connections on request
Solenoid:	- Medium SIN60V (Data sheet 1.1-145) - Super SIS60V (Data sheet 1.1-150)

### SYMBOLS

22100-S1265	22100-S1265-..
	

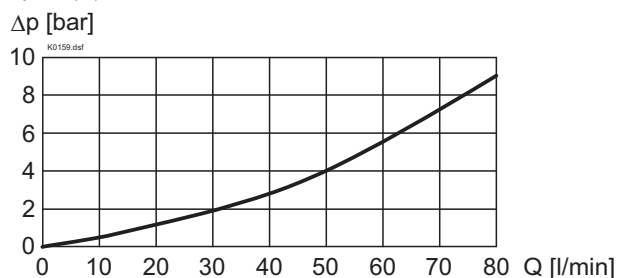
**CHARACTERISTICS** Oil viscosity  $\nu = 30 \text{ mm}^2/\text{s}$

$p = f(Q)$  Performance limit at -10%



Type	Flow direction	
	1 → 2	2 → 1
M22100-S1265	3	4
S22100-S1265	1	2

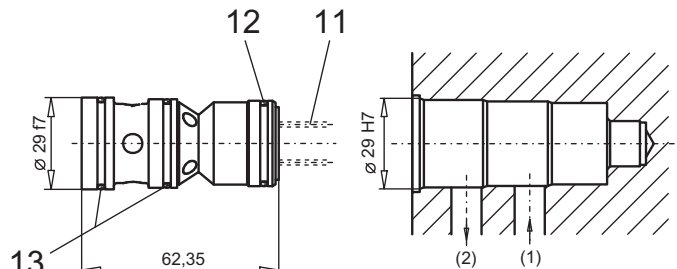
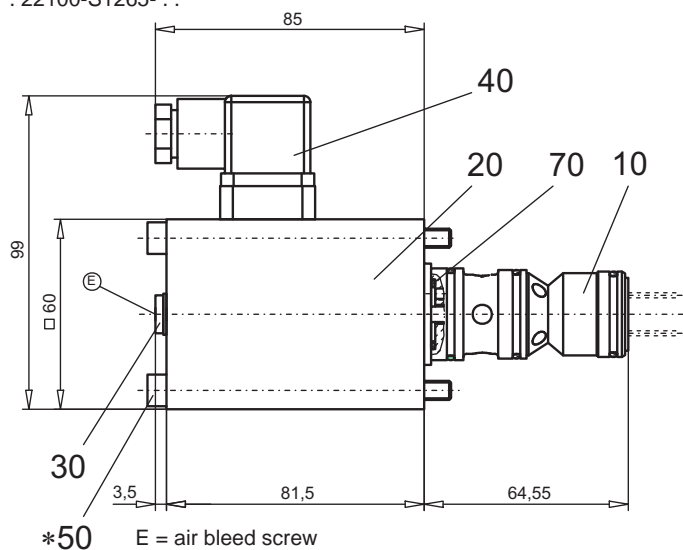
$\Delta p = f(Q)$  Pressure loss / flow characteristics



**DIMENSIONS**

22100-S1265- ...

22100-S1265



For detailed cavity drawing and cavity tools see data sheet 2.13-1019

**PARTS LIST**

Position	Article	Description
10	500.4003	Poppet valve cart. 22100-S1265
11	052.4202	Spring 1,6 x 13,6 x 26
12	160.2236	O-ring ID 23,52 x 1,78
13	160.2252	O-ring ID 25,12 x 1,78
20	260.8... 260.9...	Medium-solenoid SIN60V Super-solenoid SIS60V
30	239.2033	Plug (incl. seal) HB0
40	219.2002	Plug
50	246.3190	Socket head cap screw M6 x 90 DIN 912
70	160.2188	O-ring ID 18,77 x 1,78

\* Cartridge supplied with fastening screw M6x90 for steel bodies/blocs. For aluminium bodies/blocs longer screws are recommended (min. 2 screw diameter).

**ACCESSORIES**

Cartridge built-in sandwich body:  
Sandwich

Register 1.11

Special tool 983.2004 to poppet valve cartridge 22100-S1265

Technical explanation see data sheet 1.0-100